UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,508	04/09/2001	Jack G. Winterowd	WEYE117204	6724

26389 7590 12/13/2002

CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER
SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
1714	8

DATE MAILED: 12/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/829,508	Applicant(s) WINTEROWD, JACK G.
	Examiner Callie E. Shosho	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,15-22 and 24-30* is/are pending in the application.

4a) Of the above claim(s) *29 and 30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15-22 and 24-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 10/15/02.

In light of the new grounds of rejection as set forth below, the following rejection is non-final.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-28 in Paper No. 7 is acknowledged.

3. Claims 29-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

Non-Statutory Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-5, 7-13 and 15-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-3, 7-13, and 15-22 of copending Application No. 09/943,885 in view of Nonweiler et al. (U.S. 5,700,522).

Although the conflicting claims are not identical, they are not patentably distinct for the reasons as set forth in paragraph 8 of the office action mailed 6/27/02, Paper No. 5.

NOTE: On page 4 of applicants amendment filed 10/15/02, applicants note the provisional double patenting rejection, but do not respond with either arguments as to why the double patenting rejection is not proper or with the filing of a terminal disclaimer. Until such response is filed, it is noted the non-statutory double patenting rejection of record is maintained.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-13, 15-22, and 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 24 have each been amended to recite that the debonding agent comprises a vegetable oil (or soybean oil) which is present in the amount of from about 10 to about 50% by weight based on the total weight of the composition. The scope of the claim is confusing because it is not clear if the debonding agent is present in an amount of 10-50% or the vegetable oil is present in an amount of 10-50%. The latter suggests that the paint can comprise other types of debonding agents in additional amounts. However, in light of the disclosure on page 4, lines 16-17 of the present specification, it is clear that the composition comprises 10-50% debonding agent. Thus, it is suggested that claim 1 is re-written as "about 10 to about 50% by weight based on the total weight of the composition of debonding agent active on metal surfaces wherein the debonding agent is a vegetable oil". Similar suggestion is made for claim 24 but with inserting "soybean oil" for "vegetable oil".

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-5, 7, 10, 15-19, and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Krevanas et al. (U.S. 4,045,393) taken in view of the evidence given in Rehfuss et al. (U.S. 4,521,489).

Krevanas et al. disclose latex paint comprising 0.1-1% nonionic surfactant, 5-10% drying oil such as linseed oil, safflower oil, and soybean oil, 0.5-2% coalescing agent, 20-30% acrylic emulsion, hydroxyethylcellulose, and titanium dioxide (col.1, lines 37 and 66-67, col.2, lines 6-7, 20-27, 41-46, 57, 62-63, and 68, col.3, lines 11-15). From example 1, it is calculated that the paint comprises, for instance, approximately 10.7% titanium dioxide.

Attention is drawn to col.3, line 15 of Krevanas et al. which discloses that one type of acrylic emulsion suitable for use in the paint is known under the tradename Rhoplex MV-9. It is well known, as found in Rehfuss et al. (col.3, lines 39-41), that this acrylic polymer possesses glass transition temperature of 28 ^{0}C.

Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Krevanas et al. disclose paint identical to that presently claimed, it is clear that the paint of Krevanas et al. would inherently exhibit no sedimentation formation or phase separation and would inherently possess spreading rate as presently claimed.

In light of the above, it is clear that Krevanas et al. anticipate the present claims.

10. Claims 1-7, 10-13, and 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kang et al. (U.S. 3,894,976) taken in view of the evidence in Seiner (U.S. 3,951,899).

Kang et al. discloses water-based paint comprising binder which is polyacrylate emulsion, titanium dioxide, anionic/nonionic surfactant, hydroxyethylcellulose, antifoaming agent, biocide, fumed silica and oil such as linseed oil which comprises 5-65% of the binder. It is disclosed that one type of acrylic emulsion suitable for use in the paint is known under the

tradename Rhoplex AC-61 which is well known, as found in Seiner (col.9, lines 28-29), as a emulsion of methylmethacrylate/butyl acrylate copolymer (col.6, line 60, col.6, line 65-col.7, line 7, col.7, lines 17, 34, 45-50, and 56-58, col.13, line 12, examples V and VII, and col.18, lines 46-58).

From example V, it is calculated that the composition comprises, for instance, approximately 21% binder, 24% titanium dioxide, and 0.97% surfactant while from example VII, it is calculated that the composition comprises, for instance, approximately 15% binder, 26% titanium dioxide, and 4.9% silica.

Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Kang et al. disclose paint identical to that presently claimed, it is clear that the paint of Kang et al. would inherently exhibit no sedimentation formation or phase separation and would inherently possess spreading rate as presently claimed.

In light of the above, it is clear that Kang et al. anticipate the present claims.

11. Claims 1-7, 15, and 16-22 rejected under 35 U.S.C. 102(b) as being anticipated by Bier (U.S. 4,792,357).

Bier discloses water-based paint comprising 1-10% hydroxyethylcellulose or carboxymethylcellulose, up to 20% titanium dioxide, up to 20% acrylic binder, up to 30% vegetable oil such as linseed oil or rapeseed oil, up to 2% surfactant, up to 5% colloidal, i.e. fumed, silica, up to 5% anti-foaming agent, and preservative (col.1, lines 8-9, col.3, lines 50, 53-56, and 61-63, col.4, lines 19-20, 27-29, and 45-49, col.5, lines 5, 21-22, 27-28, and 37-42).

Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Bier disclose paint identical to that presently claimed, it is clear that the paint of Bier would inherently exhibit no sedimentation formation or phase separation and would inherently possess spreading rate as presently claimed.

In light of the above, it is clear that Bier anticipates the present claims.

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krevanas et al. (U.S. 4,045,393), Kang et al. (U.S. 3,894,976), or Bier (U.S. 3,959,224) any of which in view of Gruenwald (U.S. 2,374,678).

The disclosures with respect to Krevanas et al., Kang et al., and Bier in paragraphs 9, 10, and 11, respectively, are incorporated here by reference.

The difference between Krevanas et al. , Kang et al., or Bier and the present claimed invention is the requirement in the claims of specific type of surfactant.

Krevanas et al. , Kang et al., and Bier each disclose use of surfactant, however, there is no disclosure of specific type of surfactant as presently claimed.

Gruenwald disclose surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid (page 1, col.1, lines 35-45) wherein the motivation for using such surfactant is that it is inexpensive, imparts enhanced surface-active properties, and produces better pigment dispersions (page 1, col.1, lines 15-21 and page 2, col.2, lines 9-15).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such surfactant in the paint of Krevanas et al. , Kang et al., and Bier in order to produce a paint with superior surfactant properties and effective pigment dispersion, and thereby arrive at the claimed invention.

14. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krevanas et al. (U.S. 4,045,393) in view of Schall et al. (U.S. 6,013,721).

The disclosure with respect to Krevanas et al. in paragraph 9 above is incorporated here by reference.

The difference between Krevanas et al. and the present claimed invention is the requirement in the claims of specific type of binder.

Schall et al., which is drawn to water-based paint, disclose the use of binder with glass transition temperature of 10-40 ^{0}C such as butyl acrylate/methyl methacrylate copolymer (col.4, lines 8-11 and 56-59). Although there is no explicit disclosure of the pH of the binder, given that the binder is identical to that presently claimed, it is clear that it would inherently possess the same pH. The motivation for using such binder is to control the adhesion of paint to substrate.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use specific binder disclosed by Schall et al. in paint of Krevanas et al. in order to produce paint that effectively adheres to substrate, and thereby arrive at the claimed invention.

15. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bier (U.S. 4,792,357) in view of Schall et al. (U.S. 6,013,721).

The disclosure with respect to Bier in paragraph 11 above is incorporated here by reference.

The difference between Bier and the present claimed invention is the requirement in the claims of specific type of binder.

Schall et al., which is drawn to water-based paint, disclose the use of binder with glass transition temperature of 10-40 ^{0}C such as butyl acrylate/methyl methacrylate copolymer (col.4, lines 8-11 and 56-59). Although there is no explicit disclosure of the pH of the binder, given that the binder is identical to that presently claimed, it is clear that it would inherently possess the same pH. The motivation for using such binder is to control the adhesion of paint to substrate.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use specific binder disclosed by Schall et al. in paint of Bier in order to produce paint that effectively adheres to substrate, and thereby arrive at the claimed invention.

16. Claims 1-5, 7, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (U.S. 3,959,224).

Coleman disclose water-based paint comprising latex, i.e. binder, obtained from alkyl (meth)acrylates, titanium dioxide, 0.1-1% surfactant, thickening agent such as hydroxyethylcellulose, dispersant, plasticizer, preservative, vegetable oil such as soybean oil, and defoamer (col.18, lines 53-55, col.19, lines 9-10 and 26, col.19, line 67-col.20, line 5, col.20, lines 9-10, 14-15, and 20-21, 25-26, and 31, and Table I). From Table I, it is calculated from Paint A, that the paint contains approximately 7.6% hydroxyethylcellulose and 20% titanium oxide.

Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Coleman disclose paint identical to that presently claimed, it is clear that the paint of Coleman would intrinsically exhibit no sedimentation formation or phase separation and would intrinsically possess spreading rate as presently claimed.

The only deficiency of Coleman is that Coleman discloses the use of 9% vegetable oil, while the present claims require the use of 10% vegetable oil.

It is apparent, however, that the instantly claimed amount of vegetable oil and that taught by Coleman are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of vegetable oil disclosed by Coleman and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of vegetable oil, it therefore would have been obvious to one of ordinary skill in the art that the amount of vegetable oil disclosed in the present claims is but an obvious variant of the amounts disclosed in Coleman, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

17. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman as applied to claims 1-5, 7, and 15-21 above, and further in view of Gruenwald (U.S. 2,374,678).

The difference between Coleman and the present claimed invention is the requirement in the claims of specific type of surfactant.

Coleman each discloses use of surfactant, however, there is no disclosure of specific type of surfactant as presently claimed.

Gruenwald disclose surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid (page 1, col.1, lines 35-45) wherein the motivation for using such surfactant is that it is inexpensive, imparts enhanced surface-active properties, and produces better pigment dispersions (page 1, col.1, lines 15-21 and page 2, col.2, lines 9-15).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such surfactant in the paint of Coleman in order to produce a paint with superior surfactant properties and effective pigment dispersion, and thereby arrive at the claimed invention.

18. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman as applied to claims 1-5, 7, and 15-21 above, and further in view of Schall et al. (U.S. 6,013,721).

The difference between Coleman and the present claimed invention is the requirement in the claims of specific type of binder.

Schall et al., which is drawn to water-based paint, disclose the use of binder with glass transition temperature of 10-40 ^{0}C such as butyl acrylate/methyl methacrylate copolymer (col.4, lines 8-11 and 56-59). Although there is no explicit disclosure of the pH of the binder, given that the binder is identical to that presently claimed, it is clear that it would inherently possess the same pH. The motivation for using such binder is to control the adhesion of paint to substrate.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use specific binder disclosed by Schall et al. in paint of Coleman in order to produce paint that effectively adheres to substrate, and thereby arrive at the claimed invention.

19. Claims 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krevanas et al. (U.S. 4,045,393) in view of Gruenwald (U.S. 2,374,678).

Krevanas et al. disclose latex paint comprising nonionic surfactant, 5-10% drying oil such as linseed oil, safflower oil, and soybean oil, coalescing agent, acrylic emulsion, hydroxyethylcellulose, and titanium dioxide (col.1, lines 37 and 66-67, col.2, lines 6-7, 20-27, 41-46, 57, 62-63, and 68, col.3, lines 11-15). Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Krevanas et al. disclose paint

identical to that presently claimed, it is clear that the paint of Krevanas et al. would inherently exhibit no sedimentation formation or phase separation and would inherently possess spreading rate as presently claimed.

The difference between Krevanas et al. and the present claimed invention is the requirement in the claims of specific type of surfactant.

Krevanas et al. disclose use of surfactant, however, there is no disclosure of specific type of surfactant as presently claimed.

Gruenwald disclose surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid (page 1, col.1, lines 35-45) wherein the motivation for using such surfactant is that it is inexpensive, imparts enhanced surface-active properties, and produces better pigment dispersions (page 1, col.1, lines 15-21 and page 2, col.2, lines 9-15).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such surfactant in the paint of Krevanas et al. in order to produce a paint with superior surfactant properties and effective pigment dispersion, and thereby arrive at the claimed invention.

20. Claims 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bier (U.S. 4,792,357) or Kang et al. (U.S. 3,894,976) either of which in view of Gruenwald (U.S. 2,374,678).

Bier discloses water-based paint comprising hydroxyethylcellulose, titanium dioxide, acrylic binder, up to 30% vegetable oil such as linseed oil or rapeseed, surfactant, colloidal, i.e. fumed, silica, anti-foaming agent, and preservative (col.1, lines 8-9, col.3, lines 50, 53-56, and

61-63, col.4, lines 19-20 27-29, and 45-49, col.5, lines 5, 21-22, 27-28, and 37-42). Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Bier disclose paint identical to that presently claimed, it is clear that the paint of Bier would intrinsically exhibit no sedimentation formation or phase separation and would intrinsically possess spreading rate as presently claimed.

Alternatively, Kang et al. discloses water-based paint comprising binder which is polyacrylate emulsion, titanium dioxide, anionic/nonionic surfactant, hydroxyethylcellulose, antifoaming agent, biocide, fumed silica and oil such as linseed oil which comprises 5-65% binder (col.6, line 60, col.6, line 65-col.7, line 7, col.7, lines 17, 34, 45-50, and 56-58, col.13, line 12, examples V and VII, and col.18, lines 46-58) Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Kang et al. disclose paint identical to that presently claimed, it is clear that the paint of Kang et al. would inherently exhibit no sedimentation formation or phase separation and would inherently possess spreading rate as presently claimed.

The difference between Bier or Kang et al. and the present claimed invention is the requirement in the claims of (a) specific type of vegetable oil and (b) specific type of surfactant.

With respect to difference (a), Krevanas et al., which is drawn to paint composition, disclose the use of soy bean oil in order to prevent paint from rusting metal substrate on which it is coated (col.2, lines 24-28 and col.4, lines 3-8). Krevanas et al. also disclose the equivalence

and interchangeability of linseed oil as disclosed by Bier or Kang et al. with soybean oil as presently claimed.

With respect to difference (b), Bier and Kang et al. each disclose use of surfactant, however, there is no disclosure of specific type of surfactant as presently claimed.

Gruenwald disclose surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid (page 1, col.1, lines 35-45) wherein the motivation for using such surfactant is that it is inexpensive, imparts enhanced surface-active properties, and produces better pigment dispersions (page 1, col.1, lines 15-21 and page 2, col.2, lines 9-15).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such soy bean oil and surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid in the paint of either Bier or Kang et al. in order to produce a paint which will not rust metal substrates and possesses superior surfactant properties and effective pigment dispersion, and thereby arrive at the claimed invention.

21. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bier or Kang et al. either of which in view of Gruenwald et al. as applied to claims 24 and 26-28 above, and further in view of Nonweiler et al. (U.S. 5,700,522).

The difference between Bier or Kang et al. in view of Gruenwald and the present claimed invention is the requirement in the claims of coalescing agent.

Nonweiler et al., which is drawn to paint composition, disclose the use of coalescing agent to promote more continuous coating (col.5, line 59-col.6, line 5).

In light of the motivation for using coalescing agent disclosed by Nonweiler et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such coalescing agent in the paint of Bier or Kang et al. in order to produce a paint which form a continuous film, and thereby arrive at the claimed invention.

22. Claims 24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman (U.S. 3,959,224) in view of Gruenwald (U.S. 2,374,678).

Coleman disclose water-based paint comprising latex, i.e. binder, obtained from alkyl (meth)acrylates, titanium dioxide, surfactant, thickening agent such as hydroxyethylcellulose, dispersant, plasticizer, preservative, vegetable such as soybean oil, and defoamer (col.18, lines 53-55, col.19, lines 9-10 and 26, col.19, line 67-col.20, line 5, col.20, lines 9-10, 14-15, and 20-21, 25-26, and 31, and Table I). Although there is no explicit disclosure that the composition exhibits no sediment formation or phase separation when stored at 2 months at 20 ^{0}C or any disclosure of the spreadable rate of the paint, given that Coleman disclose paint identical to that presently claimed, it is clear that the paint of Coleman would intrinsically exhibit no sedimentation formation or phase separation and would intrinsically possess spreading rate as presently claimed.

The difference between Coleman and the present claimed invention is the requirement in the claims of (a) amount of soybean oil and (b) specific type of surfactant.

With respect to difference (a), Coleman discloses the use of 9% soybean oil, while the present claims require the use of 10% vegetable oil.

It is apparent, however, that the instantly claimed amount of soybean oil and that taught by Coleman are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of soybean oil disclosed by Coleman and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of soybean oil, it therefore would have been obvious to one of ordinary skill in the art that the amount of soybean oil disclosed in the present claims is but an obvious variant of the amounts disclosed in Coleman, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

With respect to difference (b), Coleman discloses use of surfactant, however, there is no disclosure of specific type of surfactant as presently claimed.

Gruenwald disclose surfactant which is derived from morpholine and long-chain, i.e. C_{12}-C_{36}, carboxylic acid (page 1, col.1, lines 35-45) wherein the motivation for using such surfactant is that it is inexpensive, imparts enhanced surface-active properties, and produces better pigment dispersions (page 1, col.1, lines 15-21 and page 2, col.2, lines 9-15).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such surfactant in the paint of Coleman in order to produce a paint with superior surfactant properties and effective pigment dispersion, and thereby arrive at the claimed invention.

23. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman in view of Gruenwald as applied to claims 24 and 26-28 above, and further in view of Nonweiler et al. (U.S. 5,700,522).

The difference between Coleman in view of Gruenwald and the present claimed invention is the requirement in the claims of coalescing agent.

Nonweiler et al., which is drawn to paint composition, disclose the use of coalescing agent to promote more continuous coating (col.5, line 59-col.6, line 5).

In light of the motivation for using coalescing agent disclosed by Nonweiler et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such coalescing agent in the paint of Coleman in order to produce a paint which form a continuous film, and thereby arrive at the claimed invention.

Response to Arguments

24. Applicants arguments regarding Romano (U.S. 5,510,409) have been fully considered but are moot in view of the discontinuation of this reference against the present claims.

25. Applicants arguments have been fully considered but, with the exception of arguments relating to Romano, they are not persuasive.

Specifically, applicants argue that:

(a) there is no disclosure in Bier or Coleman of 10-50% vegetable oil as presently claimed.

(b) there is no motivation to combine Bier or Coleman with Schall et al.

With respect to argument (a), it is noted that col.4, lines 45-51 of Bier does in fact disclose that the composition can comprise up to 30% drying oils such as linseed oil or rapeseed oil.

With respect to Coleman, it is agreed that Coleman discloses the use of 9% vegetable oil, while the present claims require the use of 10% vegetable oil.

It is apparent, however, that the instantly claimed amount of vegetable oil and that taught by Coleman are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of vegetable oil disclosed by Coleman and the amount disclosed in the

present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of vegetable oil, it therefore would have been obvious to one of ordinary skill in the art that the amount of vegetable oil disclosed in the present claims is but an obvious variant of the amounts disclosed in Coleman, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

With respect to argument (b), applicants argue that there is no motivation to combine Bier with Schall et al. given that the advantage of the composition of Schall et al. is that it forms strong bond to asphalt, concrete, glass, metal, and wood but that the anti-foaming agents of Bier would lessen such bond.

However, Schall et al. is only used as a secondary reference to teach the use of specific types of copolymers into the paint of Bier or Coleman. The use of the copolymers disclosed by Schall et al. would not destroy the intended function of the composition of either Bier or Coleman which are the primary references utilized. Thus, it is the examiner's position that the combination is proper.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization

where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Callie E. Shosho
Examiner
Art Unit 1714

CS
December 10, 2002